
Lectotypifications in the Genus *Andropogon* (Poaceae)

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ABSTRACT. During a taxonomic revision of the Brazilian species of *Andropogon*, the need for lectotypification of the following names became apparent: *Andropogon arenarius* Hackel f. *subcompletus* Hackel, *Andropogon bicornis* L. var. *gracillimus* Hackel, *Andropogon carinatus* Nees, *Andropogon carinatus* var. *leiophyllus* Hackel, *Andropogon hypogynus* Hackel, *Andropogon ingratus* Hackel, *Andropogon palustris* Pilger, and *Andropogon selloanus* (Hackel) Hackel.

Key words: *Andropogon*, lectotypification, Poaceae.

Of approximately 100 species of *Andropogon* L. (Clayton & Renvoize, 1986), 28 occur in Brazil (Zanin, 2001). Lectotypes are designated here for eight names related to some of these taxa. The lectotypifications were necessary because: the holotypes were destroyed, several syntypes were mentioned in the protologue, no holotype was selected from the isotypes of the only collection number cited by the author, or only the locality of collection was cited in the protologue.

For the designation of the lectotypes the best preserved specimens that fit the original description were chosen. Further, specimens that had clear indication to have been studied by the author of the species, for instance with notes in the author's handwriting, or preserved in the herbaria where the author worked or where his main collections are deposited, were considered.

Andropogon arenarius Hackel, *Flora* 68(8): 134. 1885. TYPE: Uruguay. Montevideo: arenas da Costa, s.d., *Arechavaleta 204* (holotype, W; isotypes, G, K).

Andropogon arenarius Hackel f. *subcompletus* Hackel, in Lindman, *Kongl. Svenska Vetenskapsakad. Handl.* 346: 6. 1900. TYPE: "Brasiliae austr., Rio Grande do Sul, Ilha dos Marinheiros prope oppidum Rio

Grande, in collibus arenae profunda," s.d., C. A. M. Lindman, Exp. I. Regnell. A. 699 (lectotype, designated here, S; isotypes, S, W).

Hackel (1900: 6) mentioned "C. A. M. Lindman, Exp. Regnell. A. 699" in the protologue. One specimen at W, with label data slightly different from the protologue, and two specimens at S, where the Regnellian collection is preserved, were found. The three specimens are well preserved and are identified by Hackel's own handwriting. The lectotype was chosen from the two S specimens whose label data are the same as that cited in the protologue.

Andropogon bicornis L., *Sp. Pl.* 1046. 1753. TYPE: "Porto Rico, Mayagüez, between Monte Mesa and the sea," 27 Oct., A. Chase 247 (typ. cons. MO, not seen).

Andropogon bicornis L. var. *gracillimus* Hackel, in Martius & Eichler, *Fl. Bras.* 2(3): 285. 1883. TYPE: "In Paraguay, Lamboré pr. Assumpcion, *Balansa n. 271*, a. 1874" (lectotype, designated here, W; isotypes, G [3], K).

Two collections were mentioned in the protologue, *Mosén*, from Brazil, and *Balansa 271*, from Paraguay. Five specimens of *Balansa 271* were found, one at W, three at G, and one at K. Of these, the one from W, where most of the specimens Hackel studied are deposited, is the best preserved and the only one identified by him. This specimen is chosen as the lectotype. One specimen of *Mosén* was found at W and was also identified by Hackel, but it is not as well preserved.

Andropogon carinatus Nees, *Agrostologia Brasiliensis*, in Mart., *Fl. Bras. Enum. Pl.* 2(1): 330. 1829. TYPE: "Brasilia, *Sellow*" (lectotype, designated here, K).

Andropogon carinatus var. *leiophyllus* Hackel, in A. DC. & DC., *Monogr. Phan.* 6: 434. 1889. TYPE: "Bra-

silia, Prov. Minas Gerais," *Glaziou 17381* (lectotype, designated here, W; isotype, K).

Nees (1829) mentioned "Habitat in Brasilia australiore—*Sellow vidi* in herb. Reg. Berol." in the protologue of *Andropogon carinatus*. An extensive search by the curatorial staff at B and by the first author failed to locate the cited specimen or any collection of *A. carinatus* by *Sellow*. The material was probably destroyed during World War II. Two specimens annotated "Brasilia, *Sellow*," identified as *A. carinatus* by Nees, one at K and one at W, were found. Even though the W specimen has better inflorescences, the K specimen is being designated as the lectotype because it is the only one with an original label from B attached to its sheet. According to Filgueiras (2003), there is one isotype at LE, but this specimen was not checked for this work.

Two collections of *Andropogon carinatus* var. *leiophyllus*, *Glaziou 17381* and *Glaziou 17382*, were mentioned in the protologue. Both were found at W. The first one has a duplicate at K and the second at BR. The specimen *Glaziou 17381* deposited at W is the more complete and best preserved, and agrees with the morphology described in the original description. Therefore, it is chosen as the lectotype.

Andropogon hypogynus Hackel, in Martius & Eichler, Fl. Bras. 2(3): 290. 1883. TYPE: "Brasilia, *Riedel 1655*" (lectotype, designated here, G; isotype, K).

Hackel (1883) described *Andropogon hypogynus* var. *genuinus*, variety *anatherus*, and variety *conjugens*. For *A. hypogynus* var. *genuinus* the author mentioned *Weddell 1858*, *Sellow s.n.*, *Warming s.n.*, and *Riedel s.n.*; the first two were not located during this research. The specimen of *Warming* deposited at W bears an inflorescence of the variety *conjugens* mixed with a complete specimen of the variety *genuinus*, as mentioned by Hackel (1883). Further, the same sheet contains one envelope with a fragment of *Riedel 1655*, corresponding also to *A. hypogynus* var. *genuinus*, probably the same as *Riedel s.n.* cited by Hackel (1883). All this mixed material was identified by Hackel. One specimen of *Riedel 1655* was found at G. It was chosen as the lectotype of *A. hypogynus* because it is more complete and better preserved than the *Warming* collection at W. There is no other material mixed on the sheet. There is no doubt that it corresponds to *Riedel* mentioned by Hackel (1883) in the protologue of the species because it is identified in the author's handwriting as "*A. hypogynus* Hackel in Mart. F. Br."

There is also one duplicate of *Riedel 1655* at K, for which there is no indication of having been seen by Hackel.

Andropogon ingratus Hackel, Oesterr. Bot. Z. 51(5): 151. 1901. TYPE: "Brasilia, Provincia Minarum, 1891, *Glaziou n. 18681*" (lectotype, designated here, W; isotypes, US, W).

Hackel (1901) indicated *Glaziou 18681* in the protologue of *Andropogon ingratus*, of which there are two specimens at W annotated by him. There is one specimen at US also annotated by Hackel. The two specimens of W are better preserved: the more complete one is being designated as the lectotype and was annotated as such.

Andropogon palustris Pilger, Bot. Jahrb. Syst. 30(1): 137. 1901. TYPE: "Brasil, Mato Grosso, Jul. 1899, *Herrmann Meyer 732*" (lectotype, designated here, US).

The holotype deposited at B was destroyed during World War II. The US specimen seems to be the only sheet extant for the typic collection *Meyer 732* and is designated as the lectotype.

Andropogon selloanus (Hackel) Hackel, Bull. Herb. Boissier. 2(4): 266. 1904. *Andropogon leucostachyus* Kunth subsp. *selloanus* Hackel, in A. DC. & DC., Monogr. Phan. 6: 420. 1889. TYPE: "Brasilia *Sello*" (lectotype, designated here, W; isotypes, K, W).

In the protologue of *Andropogon leucostachyus* subsp. *selloanus*, Hackel (1889) cited two collections from Brazil, *Sellow s.n.* and *Weddel 2711*, besides *Balansa 279a* from Paraguay. Two unnumbered specimens of *Sellow* and one of *Balansa 279a* were found at W, all of them with original notes made by Hackel. The morphology of the two *Sellow* specimens agrees better with the original description, and the more complete one was selected as the lectotype. Another unnumbered specimen of *Sellow* was found at K, also annotated by Hackel.

Other *Sellow* specimens of *A. leucostachyus* subsp. *selloanus* were examined at K and W. However, although their morphology agrees with the original description, they were not considered for lectotypification because it appears that Hackel did not see them.

Renvoize (1998) cited *Balansa 279* as an isosyntype of *A. selloanus*, but this specimen, also from Paraguay, was collected in a different locality from that of *Balansa 279a* and was not considered for lectotypification.

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